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ABSTRACT

The Newark (New Jersey) Board of Education and Essex County College propose the establishment of the Newark School for Technology, a secondary and higher education institution that would develop the intellectual talents of students who wish to pursue a challenging and rigorous academic program. Designed to address articulation problems within the educational system, the proposed school seeks to encourage student mobility from secondary to college levels by providing a fully articulated curriculum for urban students who have completed the eighth grade. The flexible program will consist of: (1) a developmental phase, which will prepare students to cope with a challenging academic program; (2) a pre-associate phase, in which students will complete high school requirements, as well as language course work and tertiary level course work in mathematics, science, computer technology, and the liberal arts; and (3) an associate phase, in which students will complete associate degree requirements. The program aims to provide students with several options upon completion of their studies, including opportunities to continue their education beyond the associate degree, even while being fully employed. This paper describes the proposed program design, curriculum, and procedures for student admission, faculty recruitment, governance, and resource allocation. (Author/MJL)

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A Proposal for the Establishment of

The Newark School for Technology

A Preliminary Concept Paper

By

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Acknowledgements

Many persons contributed to the conceptualization and design of this proposal through their words of encouragement and stimulation. It will not be possible to name all contributors here, but, we would like to extend to them our sincere thanks and appreciation. We would be remiss, however, if we did not mention the special contributions of several individuals. Primary recognition is due to Mr. Carl Sharif, President of the Newark Board of Education, Ms. Clara Dasher, Chairperson of the Essex County College Board of Trustees, Dr. Columbus Salley, Executive Superintendent of Schools, Newark Board of Education, and Dr. A. Zachary Yamba, President, Essex County College, for their foresight in recognizing the need for greater collaboration between the two institutions. Their leadership provided the stimulation necessary for the germination and development of the concept being proposed.

Dr. Janet Lieberman, founder of the Middle College at LaGuardia Community College, provided incisive feedback during the crucial embryonic period of the program conceptualization. Ms. Judy Brodsky, Associate Provost of Rutgers-Newark and Mr. David Kunz of Rutgers University College, were extremely supportive through their enthusiasm and suggestions. A note of special thanks is made to Ms. Ivette Alfonso, doctoral student at Seton Hall University who assisted us in the review of the literature and editing of the paper. Special thanks are extended to Mrs. Joyce Burt, who typed the several drafts of this proposal.

Abstract-The School

We propose that the Newark Board of Education and Essex County College develop, organize and implement the Newark School for Technology, whose mission is to more fully utilize and develop the intellectual talents of Newark students who are committed to the pursuit of engaging in, and completing a challenging and rigorous academic program. The academic program of the proposed school will focus on mathematics, science, computer technology and the liberal arts, and will result in the attainment of a high school diploma and an associate degree at the end of a five year period. The liberal arts program will focus on second language development, the arts and the humanities and will form the core curriculum of all three specializations. Thus, it is expected that upon completing the program, students will be proficient in a second language and mathematics, science or computer technology.

The School will provide a unique environment for its students. It will be highly structured while at the same time individualized to address the varying needs of its students. It will be located within walking distance to both the Essex County College and Newark's central business district thereby permitting students access to the academic and internship resources of institutions located in the area.

Introduction

At a recent conference on secondary and post-secondary education, participants pointed to the need for a re-examination of the basic assumptions underlying the traditional structure of high school and college education. Discussion centered on the need to modify the rigid lockstep process which requires the completion of four years of secondary education prior to undertaking more advanced academic work at the college level. The participants also discussed the traditional structural process which is characterized by essentially automomous layers of educational programs at the elementary, secondary and post-secondary levels, resulting in few opportunities for a fully articulated and unified curriculum among the three levels. This condition, particularly between the secondary and post-secondary levels, has contributed to the wasteful use of intellectual and financial resources largely due to redundant courses and the usual programmatic requirement that students complete four years of high school before graduating and entering college.

In their 1973 report on higher education, the Carnegie Commission pointed out that two-thirds of the course offerings of the last two years of high school and the first year of college are repetitious. Thus, approximately two out of five years between the ninth grade and the first year of college are dedicated to an environment which contributes to student boredom and academic mediocrity. We recognize that some high schools primarily serving students from middle and upper income families have experimented with

early admissions programs which allow students to engage in college level studies prior to high school graduation. These experiments have not been introduced, in any significant way, into urban secondary schools. Consequently, they have failed to reach the students who constitute the majority of young people who prematurely abandon the traditional educational process.

The purpose of this paper is to propose a model for the establishment of a school with a fully articulated curriculum. However, prior to developing and discussing the specific parameters of our model, the issue of articulation and educational restructuring needs to be addressed.

A cursory look at the literature, concerning educational innovation and restructuring, will reveal a major interest in articulation as a way of improving the quality of education. Charles W. Meinert, one of the 1981 Simon's Rock Conference presentors, discussed articulation at length and provides the foundation of our definition. Our truncated version of Meinert's views defines articulation as:

- A process of coordinating educational policies and practices to assure a smooth flow of students from one educational level to another.
- An expressed attitude of cooperation among educators of all levels who will work toward a common goal above self-interest.
- The structuring of an educational process without rigid and artificial divisions.

Efforts on behalf of articulation have been made through the establishment of programs: that extend high school from one to two years, resulting in an associate degree entrance into the third year of college; that establish middle colleges catering to the 16-20 year old student and; that provide for early entrance into college, and several other variations on the theme. Although there are many ways to make articulation a concrete reality, they are all grounded in a common concern for the individual student and the need to better educate today's youth.

Nancy R. Goldberger, a presenter at the Simon's Rock 1981 Conference, in evaluating educational planning, notes the resistance in the educational establishment to the individualized or developmental approach. Economic considerations have to be weighed when considering any educational innovation. Individualizing programs takes faculty time, development, and money. Therefore, concern for the individual student who may not fit a mold takes a back seat (or more aptly stated, doesn't come along for the ride at all). In considering education developmentally, educators must admit that not all students are the same and that heterogeneity and unpredicatability are the principle characteristics of student groups. It is in meeting the academic needs of very distinct student populations (the aged, women, ethnic groups, the younger than average student and others), that educators have expressed an interest in taking an individualized developmental approach.

The concern for the developmental approach is not new, historically dating back, as it does, to the era of John Dewey and other humanists. The Carnegie

Commission on Higher Education, which produced the seminal report on higher education for the seventies and which continues to have relevancy for the eighties, also sounded the same note. In the policy statement "Less Time, More Options: Education Beyond the High School" (Mayhew, 1973), the report criticized the lockstep manner in which students are moved through elementary to secondary to college education.

Besides making a case for changes in the types of academic degrees offered and the length of time required to acquire one, it also states that there is a need to shorten the time spent in formal education; that provision must be made for different exit levels during the college years; that options for education in later life should provided. Articulation becomes a major process for achieving these changes since without the cooperation of the high schools, the colleges can do little. In another policy statement, "Continuity and Discontinuity: Higher Education and the Schools" (Mayhew, 1973), a call for new structures is made.

Changes in education do not take place in a vacuum. Societal forces are always at work to shape educator's pre-occupations and perceptions of educational innovation. One example of this is the Boston Compact. Developed for implementation in the 1982-83 school year, it is an agreement between the school system, the city government and the business community. Under the agreement, the school system is committed in specific terms, to raise the performance level of its students while the business community has agreed to hire Boston High School graduates who attain minimum competencies in

reading, writing, and mathematics. This is not entirely an altruistic agreement. The national birth rate is declining and will result in a loss of 13.7 million entry-level workers by 1990. Minority youth will form a larger percentage of this labor pool rising from 15% to 19%. Thus, the need to provide better educated students for Boston's expanding economy is providing the impetus for this commitment. How better educated can the students be if their education is expanded for a year or two so that an associate degree is acquired? Although the executive summary concerning the Boston Compact does not consider this specifically, it is implied that new ways of educating students will have to be found.

In looking at the model which is described in the following sections, the reader should be mindful of the population to be served. This school, unlike many found in the literature, is geared to average eighth grade graduates. Average and below average students are the ones who will primarily benefit from our model. This is a bold but necessary step towards better meeting the educational needs of Newark's youth.

Program Design

The proposed design provides for an educational program framework which will more fully address the intellectual, emotional, and social development needs of urban students who have completed the eighth grade and are about to initiate secondary level studies. The program will provide a three phase offering focusing on the development of skills for a pre-associate phase in which students will complete the requirements for the high school diploma and the associate phase in which students will complete the requirements for the associate degree. The three program levels are delineated below:

Level I - Developmental Year Phase

The developmental year phase, will focus on providing students with the necessary skills to successfully cope with a challenging academic program. The focus of this phase will be the development of computation and communication skills effective writing skills critical analysis skills rhetorical, listening and interpretative skills. Practical study skills, such as note taking, speed writing, outlining and researching will be stressed during this period. These skills will also be reinforced through content area courses. This phase will be highly individualized and may last from six months to a maximum of eighteen months, depending on the student's progress.

Level II - Pre-Associate Phase

Students will participate in intellectually provocative academic programs which will include both secondary and

tertiary level course work in mathematics, science, computer technology, and the liberal arts. Second language acquisition will be an integral part of the program. Learning Portugese, Spanish, Russian, Arabic, Japanese or German will not only lead to a well-rounded student, but also will enhance the student's abilities to cope with the increasingly international scope of endeavors in technology, cybernetics, the arts and financial affairs. While the curriculum will be somewhat modified from the regular high school curriculum, students will surpass all state requirements for high school certification. Additionally, during the pre-associate phase, students will have completed approximately 25 percent of the courses required for the associate degree. The duration of this phase will be from 24 to 30 months, depending on the student's progress.

Level III - Associate Phase

Students will continue to take college level course work leading to the associate degree. Upon initiating the associate phase, students will be fully matriculated at Essex County College. The School will serve as their academic and administrative department at Essex County College. However, they will have the opportunity to take courses offered by the academic divisions of the

college. Having completed one-quarter of the course work during the previous phase, the associate phase may be completed in approximately 18 months. Students will be expected to pay regular Essex County College tuition and fees and will be eligible for financial aid to defray these costs.

The entire program may be completed in five years. It will be possible for students to complete the entire program in as little as four or as long as six years, depending upon the motivation and course of study selected.

A major concern of our model is to ensure that the students have several options available to them upon completion of the program. Among the options available to students is the opportunity to continue their education towards the baccalaureate degree and beyond. In this regard, officials of Rutgers-Newark have indicated their interest in offering a Level IV Baccalaureate Phase, thus providing the student with a fully articulated educational experience through the bachelor degree. A further option is the acceptance of full-time employment in the fields of computer science, and related technologies, while completing the bachelor degree on a part-time basis.

Curriculum

The most important part of the school is a dynamic curriculum which will be fully compatible with its mission and goals. The curriculum development process will be undertaken jointly by the staff of the Newark Board of Education and Essex County College. In this manner, the needs, interest, and requirements of both institutions will be addressed.

The curriculum development phase will be initiated after the acceptance and approval of the proposal by both institutions. It is expected that this phase will require approximately one year of research and development.

Recruitment and Admissions

Recruitment of students will be especially important at the beginning of the program. Therefore, it will have to be vigorous and carefully aimed at the intended school population. All eighth grade students and their parents will receive information through school assemblies, written literature, guidance counselors and posters. Once a student expresses interest in the program, the admissions process begins.

Since initiative and motivation are the two main criteria for selection into the program, demonstration of said characteristics will be required of the student. The student will be able to demonstrate these characteristics by:

1. Independent completion of application process including an essay, detailing why the student is interested in this program, a personal interview, submission of recommendations obtained by the student applicant;
2. Previous participation in extra-curricular activities, and;
3. Evidence of independent reading habits of the student applicant.

Once an initial determination is made concerning motivation and commitment, the student will be placed on a list of possible candidates. From this list, a class of 150 students will be randomly selected through the use of tables of random numbers. This procedure will increase the level of fairness in the selection process. In addition, a list of alternates will be developed to replace students who decide not to attend the school.

Students

The proposed educational program will serve Newark residents who have completed the eighth grade. Although previous academic achievement will not be a primary criteria for admission into the program, it is expected that students accepted into the program will possess a high level of motivation and assertiveness. Students admitted into the program will likely come with varied academic, socio-economic, racial and ethnic backgrounds, reflecting the diversity of Newark's residents. It is expected that all will commonly share the goal of participating in a unique high quality educational program. While major responsibility for success in the program will be borne by the student, it is expected that the parent, through a written contractual relationship, will also be actively involved in the educational process. This is particularly important during the developmental phase (Level I) of the program. During this crucial period, it is expected that the student will be exposed to mutiple support structures both at the school and at home.

During the developmental stage of the school, it is expected that 150 students will be admitted into each first year class. Although we expect to experience some student attrition, the staff and faculty will all be committed to ensuring that each student will complete the entire five year program. Having demonstrated its educational effectiveness, it is possible that the school will increase the size of its classes in carefully planned incremental stages.

Faculty

The proposed school will have a unique mission which requires a faculty with a compatible educational philosophy and methodology to ensure its successful implementation. Faculty for this school will be selected from applicants from both institutions. They will be employed full-time by one institution while serving on an adjunct basis for the other. They will participate in formative staff development activities where the progress of the students, the school, and themselves will be regularly assessed.

It will be encouraged that faculty and staff will maintain a high level of communication and interaction with the students. Formal classes, seminars, guest lectures, and activities organized by the students themselves will provide the media through which faculty and students will engage in dialogue and interaction conducive to the intellectual development of the students.

Governance

The school will be governed by a Board of Directors which shall be representative of both institutions. The Board of Directors will set the policy for the school. It will appoint a Dean who will be responsible for providing educational leadership, administration, and handling the day to day affairs of the school. As chief executive and operating officer of the school, the Dean will be responsible for interviewing, selecting, and recommending for employment all staff, faculty and administrators of the school.

Resource and Allocation

The financial, material and physical resource of the school will be provided by per capita and special allocations from both Essex County College and the Newark Board of Edcuation in accordance with a formula to be determined. In addition, the school will seek financial support from foundations and the private sector. At the associate level (Level III), students will be charged Essex County College tuition and fees and will eligible to receive financial aid.

References

Boston Compact, Executive Summany, 1982.

Boston Compact, Memorandum of Agreement, January 18, 1983.

Conference at Simon's Rock Bard College, A Case for Educational Restructuring, January 1981.

Mayhew, C. (Ed.), Carnegie Commission on Higher Education: Policy Statements and Analysis, California: Jossey Bass Publishers, 1973.

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Office of the President

March 28, 1983

TO: Vice President Edison O. Jackson
Dr. Juan Rosario

FROM: A. Zachary Yamba, President

SUBJECT: Proposal for Newark School for Technology

After a year of trials and tribulations, I am happy to see the product of your discussion in a well-researched, well-thought-out and well-written proposal. This proposal represents one of the best documents I have seen in a long time.

You are both to be commended.

I shall follow-up on your suggestion that we convene a meeting of all principals, i.e. our respective superiors, towards the third week in April.

cc: Mrs. Clara Dasher, Chairperson
Board of Trustees

Mr. Carl Sharif, President
Newark Board of Education

Dr. Columbus Salley, Exec. Superintendent
Newark School District